

# KARO ECHO Newsletter

## KARO ECHO

Serving the communities  
of El Cerrito and  
Kensington, California

**Web:** [www.karoecho.net](http://www.karoecho.net)

**Facebook:**  
[KARO ECHO facebook](#)

**Email:** [info@karoecho.net](mailto:info@karoecho.net)

## Important Frequencies

KE Primary: 146.415 MHz  
Weekly Net, Thurs. 1900

KE Secondary: 146.475 MHz

4Cs Repeater: 145.110 MHz  
(TX down 600 with PL 82.5)

## Monthly Meetings

In-person meetings

2<sup>nd</sup> Monday of each month  
7:00 pm

(online via Zoom for now)

Arlington Park Clubhouse,  
1120 Arlington Blvd,  
El Cerrito, CA

The next meetings are:

Sept 13<sup>th</sup>, 2021

Oct 10<sup>th</sup>, 2021

Meeting minutes are on  
[the website](#) in the past  
events page.

## What's New

### KARO ECHO Monthly Meeting, Sept. 13<sup>th</sup>, 1900 — **ONLINE VIA ZOOM**

The monthly KARO ECHO meeting will be held using the Zoom online meeting app, at the usual time, 1900, Monday Sept. 13th. Find the link to join in a KARO ECHO email from Howdy KE6BEE. The training portion of the meeting will focus on the Fall SET, the KE [Disaster Communications Plan](#), response scenarios and a new training self-assessment checklist under development. [Full agenda link](#)

### Save the Date for the KARO ECHO SET — Nov 13<sup>th</sup>

The fall SET will be held Saturday Nov. 13th from 10:00-12:00. Please hold this date to participate if you can. More information to come soon.

### Documents Related to Training

The September membership meeting training will include discussion of a new draft [Self Assessment Checklist Book](#), as well as other existing KARO ECHO documents related to training and go-kits:

[TRAINING GUIDE short](#) (four levels of skill, short form)

[TRAINING GUIDE long](#) (four levels of skill, long form)

[Go Kit / Checklist Recommendations](#) (by deployment type)

[Simplified three page Jump Kit \(Go-Kit\) Check-List](#)

[A Jump-Kit Check-List with Extensive Discussion/Explanation](#)

### What Three Words Location Finding Exercise

A writeup of the Sept. 2 net exercise involving position reporting using the [What3Words website/app](#) can be found on page 10.

### New Digital Skills/Practice Net Starting Monday Sept 20<sup>th</sup>, 1900

KARO ECHO is starting a new net to explore digital modes of communication over ham radio. For now it will be monthly on the third Monday at 7pm (a week after each monthly membership meeting). The initial exercise will use the [FLdigi software](#), because it can be used with modes that will work with acoustic coupling, allowing digital communication without specialized digital interfaces for the radio, only need a computer with audio (speaker/mic) or an android smart phone/tablet. See more information on page 9.

**LOCAL NETS****KARO ECHO NET**

146.415 MHz Simplex

Thursday eve, immediately after the West Contra Costa RACES Net, but never before 1900 hours local time.

**West Contra County ACS/RACES Net**

145.110 MHz repeater

(TX down 600 with PL 82.5)

Thursday: 1845 local time

**Contra Costa County HF EmComm/RACES Net**

3893 KHz

Thursday: 1835 local time

**American Red Cross of the Bay Area (ARCBA)**

WW6BAY Repeater

443.975 MHz

TX +5 MHz, PL 100 Hz

Wednesday: 2000 local time

**BOARD OFFICERS**

President: Hal KK6NDF

Vice-Pres. and Emer. Coordin.

Howdy KE6BEE

Treasurer: Larry KK6GIO

Secretary: Tom KN6BUY

Outreach/PR Manager:

Blake KN6CMP

Webmaestro: Rob K6RJM

Board members at large:

Don, NI6A

Annette, KJ6SWK

**What's New *(continued)*****Neighborhood nets and Communication Hub Activities**

The first Wednesday of the month has a lot of radio activity in the area.

**West county EmComm net out of Richmond at 11 am** (starts after the Richmond siren test) FRS/GRMS simplex (on Ch.19, secondary Ch. 17), followed by a ham net on the WA6KQB 440 repeater with WA6DUR repeater as secondary (see WA6DUR freq. information below)

**East Richmond Heights**, ham operators check-in at 1845 on Walt's WA6DUR repeater 442.150 +5 offset and PL tone 107.2Hz.

**EC4 (central El Cerrito Hills) CERT Net**, Ch. 2 (462.5875), at 1845

**EC9 (north El Cerrito Hills) CERT Net**, Ch. 15 simplex (462.550), at 1900

**East Richmond Heights, Ready-2-React Net**, Ch. 7 (462.7125), at 1930

**EC8 (north El Cerrito) CERT net**, Ch.1 (462.5625), at 2000

**Ken6 (SW Kensington) CERT net**, on first Tuesdays, Ch. 6 (462.6875) at 1900

**Richmond simulated EOC net**, first Thursdays at 1030, on three simplex frequencies in this order: 147.450, 441.000, 223.400

**Albany Radio Net**, Wed. (weekly) 1900 on Ch.19 [Albany Radio groups.io](http://AlbanyRadiogroups.io)  
[Coordination of neighborhood FRS/GMRS frequencies can be found here.](#)

**License Upgrade**

Congratulations to Tom KN6BUY for upgrading his license to General class.

**Welcome New Hams**

New El Cerrito licenses issued: none in past month

New Kensington licenses issued: none in past month

**Action - Contribute to this Newsletter**

Content for this newsletter is always welcome. We are seeking submissions for a new free classified section for selling/trading radio equipment/services. Anyone with events or other content suggestions please send them to the newsletter editor Howdy [ke6bee@arrl.net](mailto:ke6bee@arrl.net)

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## What's New *(continued)*

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### Last Minute to Stream QSO Today Virtual Conference Presentations

The [QSO Today Virtual Conference](#) was held in August and has a great variety of presentations on ham topics. Sept. 13 is the last chance to register for \$12.50 and view and download conference content. Or, put the future conference on your calendar, March 13-14, 2022.

### See Technical Corner on Page 8

Learn how a Bluetooth wireless audio connection might aid mobility for other activity while monitoring 146.415 on you base station at home.

### Member helping members on Page 8

See how Jay KJ6WSS helped Tom KN6BUY with the relocation of a metal lathe.

### ARRL Learning Network Webinars

Visit the [ARRL Learning Network](#) (a members-only benefit) to register, check on upcoming webinars, and to view previously recorded sessions.

ARRL members may register for upcoming presentations and view previously recorded Learning Network webinars. ARRL-affiliated radio clubs may also use the recordings as presentations for club meetings, mentoring new and current hams, and discussing amateur radio topics.

### Zonehaven Interactive Map

Lookup your [Zonehaven evacuation zone here by on this interactive map](#). If you have internet access at the time this map is layers with information about fire events, weather, evacuation orders and other information, but as a matter of preparedness, it is useful to know your zone number so that you will recognize your turn to evacuate when instructions are announced by zone numbers.

### Treasurer's Report

#### Treasurer's Report August 2021

Larry Vanselow, KK6GIO, Treasurer

APRIL GENERAL FUND1 Beginning Balance ..... \$1,339.17

Income: December dues payments: ..... n/a

Total General Income: ..... \$0.00

Donations.....\$0

Total General Disbursements ..... \$0.00

Ending Balance ..... \$1,339.17

(Portion as petty cash..... \$0.00)

Thank you to all of the donations and membership payments that support our club.

## Activities

### Weekly Net Control Rotation

Thanks go out to the volunteer stations who have been taking turns as Net Control Stations (NCS) each Thursday. This rotation has been working very well and everyone has been doing a great job. The regular NCS roster has 9 operators. We have one opening as an opportunity for others to fill in. Please volunteer to give it a try. [Download the new Net Script for NCS operators.](#)

Below are the current scheduled dates for each operator. The [KARO ECHO google calendar](#) also has these assignments and can be found at the bottom of the events page. Add to your electronic calendar By pressing the "+GoogleCalendar" button in the lower right.

Net control is a skill that many operators should have and regularly practice. Please contact Howdy [ke6bee@arrl.net](mailto:ke6bee@arrl.net) if you are interested in taking a net control assignment.

| Callsign | Name               | Assigned Dates (skipped: 11/26/2020, 11/25/2021, 12/24/2020, 12/31/2020) |            |           |           |           |            |            |
|----------|--------------------|--|------------|-----------|-----------|-----------|------------|------------|
| KE6BEE   | Howdy Goudey       | 9/17/2020  | 11/19/2020 | 2/11/2021 | 4/15/2021 | 6/17/2021 | 8/19/2021  | 10/21/2021 |
| KK6NDF   | Hal Graboske       | 9/24/2020  | 12/3/2020  | 2/18/2021 | 4/22/2021 | 6/24/2021 | 8/26/2021  | 10/28/2021 |
| KM6HBO   | Jamuel Starkey     | 10/1/2020  | 12/10/2020 | 2/25/2021 | 4/29/2021 | 7/1/2021  | 9/2/2021   | 11/4/2021  |
|          | Open               | 10/8/2020  | 12/17/2020 | 3/4/2021  | 5/6/2021  | 7/8/2021  | 9/9/2021   | 11/11/2021 |
| K6RJM    | Rob McNicholas     | 10/15/202  | 1/7/2021   | 3/11/2021 | 5/13/2021 | 7/15/2021 | 9/16/2021  | 11/18/2021 |
| KE6HCE   | Armando Picciotto  | 10/22/202  | 1/14/2021  | 3/18/2021 | 5/20/2021 | 7/22/2021 | 9/23/2021  | 12/2/2021  |
| NI6A     | Don Simon          | 10/29/202  | 1/21/2021  | 3/25/2021 | 5/27/2021 | 7/29/2021 | 9/30/2021  | 12/9/2021  |
| KN6CMR   | Susan Yeaman       | 11/5/2020  | 1/28/2021  | 4/1/2021  | 6/3/2021  | 8/5/2021  | 10/7/2021  | 12/16/2021 |
| KK6ZPM   | Karen Fenton-Leong | 11/12/202  | 2/4/2021   | 4/8/2021  | 6/10/2021 | 8/12/2021 | 10/14/2021 | 12/23/2021 |

### Thursday Net Training Exercises

Following the net check-ins every Thursday at 1900 on 146.415, KARO ECHO usually runs a training exercise to learn and practice skills that are important for successful disaster communications.

[A list of potential training exercises](#) is posted and maintained on the training page of the website.

[A log of our check-in counts can be found here.](#) Howdy KE6BEE typically updates this document in real time during the net, so you can check it against your log during or after the net.

We averaged 21 check-ins/week in 2020 with a high of 28. So far in 2021, we are averaging 19/week with a high of 25. Thanks for your participation. Keep it up!

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## About KARO ECHO

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KARO ECHO is the name of the Kensington Amateur Radio Operators and the El Cerrito Ham Operators mutual benefit association, an all-volunteer non-profit group of amateur radio operators providing auxiliary communications for the cities of Kensington and El Cerrito in the event of a disaster. KARO ECHO works with CERT (Community Emergency Response Teams) in Kensington and El Cerrito, but is not an official part of the CERT program.

Monthly in-person meetings of KARO ECHO are on the 2nd Monday of each month at 7:00 pm, online using Zoom. The next meetings are:

- ♦ Sept. 13<sup>th</sup>, 2021
- ♦ Oct. 10<sup>th</sup>, 2021

Yearly membership dues are \$30/year for individuals, \$40/year for a family membership. Payments can be given to the Treasurer at monthly meetings or mailed to the address below. Participation is welcome independent of paid membership, but only licensed amateur radio operators who are dues paying KARO ECHO members will be allowed to vote on KARO ECHO business. Dues cover our 510c3 registration, post office box, web page, station operating manuals and more. Your input on useful expenditures to aid emergency communications is welcome.

Mail to: KARO ECHO, PO Box 2025, 6324 Fairmont Ave, El Cerrito, CA 94530-3651

Please see our website for more information: [www.karoecho.net](http://www.karoecho.net)

You can contact the KARO ECHO board by email: [info@karoecho.net](mailto:info@karoecho.net)

### KARO ECHO Facebook

The [KARO ECHO Group on Facebook](https://www.facebook.com/groups/1451216838315743/) has a lot of good information, more than is contained on our website. There is a whole wide world of emergency communications information at <https://www.facebook.com/groups/1451216838315743/> Check it out and be inspired of what we can do to help disaster victims in our community.

### Weekly Training Net

The Karo-Echo Weekly Training Net meets every Thursday evening immediately after the West Co Co County RACES/ACS Net; but not before 1900 on 146.415 MHz Simplex. Our secondary frequency is 146.475 MHz simplex. Details at <https://www.karoecho.net/events>

### Newsletter Content Wanted

Any input on content you'd like to propose for inclusion in the KARO ECHO newsletter can be sent to Howdy [ke6bee@arrl.net](mailto:ke6bee@arrl.net) We welcome all ideas for content including announcements, events, etc.

### KARO ECHO Field Day Video

Thanks to Frans KJ6IUV for taking video and editing a nice [movie of Field Day activities](#).

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## Outreach, Education and Licensing

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### Write-up of message handling exercise

There is a [writeup of a recent messaging exercise](#) on the KARO ECHO website that covers prowords and fills and other guidance for operators when passing written messages.

### Local and Online Ham License Classes and Exams

COVID restrictions have changed ham license classes and exams. Many are now offered in distanced/outdoor venues or entirely online. See a [list of opportunities on the KARO ECHO website](#)

### Recruiting Additional Communications Coordinators

Read the [Neighborhood District Radio Communications Coordinator \(DRCC\) plan](#) written by Don NI6A.

### Training for Beginning Operators

Thanks to Jay KJ6WSS, Edward KM6UBY and Karen KK6ZPM for their May 23rd introductory radio class, with emphasis on the GMRS radio BTECH-V1. [A recording of the class and other resources are available here.](#)

### Net Control Operator Training

Diane KK6RED, David KJ6AAT and Howdy KE6BEE taught an Apr 4th net control class for C8 the county wide CERT organization. There was a great reception to this class across the county and we inspired many groups to expand the scope of their net trainings. [The class recording is available here.](#)

### EMCOMM related videos

See the CERT SET Youtube video link

<https://www.youtube.com/watch?v=66DdgGLIn4c&list=PLROOaUIKdrEgSID1bQJZojW3PzfURoEY-&index=144&t=0s>

Post Camp Fire GMRS organization

[https://www.youtube.com/watch?time\\_continue=220&v=aZiSC4sgKYw&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=220&v=aZiSC4sgKYw&feature=emb_logo)

### ELMERING

An online elmering forum can be accessed by emailing [elmer@karoecho.net](mailto:elmer@karoecho.net) or browsing the associated google group. More in-depth elmering/mentoring is available by request.

In the meanwhile, please check out the plethora of useful information at <https://www.karoecho.net> website.

### Encouragement to Monitor 146.415 and Explore Other Nets

During the current shelter in place, with time spent at home, it is a good opportunity to use your radio and monitor 146.415 (call out for others occasionally and make some casual contacts). There are a lot of other nets around the bay area that you can reach. Expand your radio horizons. See the [KARO ECHO Coordination page](#) for a listing of some other nets to explore. You can just listen at first, or program your radio (if a repeater is used) and try transmitting as a guest check-in to see if you can make contact.



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## KAROECHO.Net Website

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Especially, check out the EVENTS Page ( <https://www.karoecho.net/events> ) and the WORKSTREAMS drop-down menu which will lead one to an extensive training page that provides online learning at your own pace. Everything from the very beginning to advanced EmComm operations is detailed. The RESOURCE page has many excellent outside links.

- ♦ This [new heading on the Events page](#) will be updated with recent additions to the website.
- ♦ If you are on Facebook, contribute to the KARO ECHO Facebook Group Page at <https://www.facebook.com/groups/1451216838315743/>
- ♦ If you haven't already filled out the JOIN form please do. Find it as a drop down menu under "Get Involved" See <https://www.karoecho.net/join>
- ♦ A [follow-through novice primer](#) has been put on the website for new hams once they have bought their radio and want to learn more.
- ♦ A [dual-band antenna primer](#) for new hams who want to graduate from the rubber-ducky world
- ♦ Note that the Tram 1480 gain dual band antenna is currently still available for \$51 (no tax and free shipping) on ebay or from Home Depot. That and an inexpensive speaker tripod is a dynamite combination for portable operation. This antenna is equivalent to the Diamond X-200a antenna which sells at HRO for \$125.00 before taxes and shipping.
- ♦ For newbies, please visit <https://www.karoecho.net/workstreams/training> and read the study materials. It is all there except for hands-on experience. Ask questions!
- ♦ Following the Thursday evening net check-in, there is often a training session and/or discussion.
- ♦ All recent KARO ECHO [Minutes will be found at our Past Events page](#) We are now including past Executive Board Minutes as well. [Newsletters are on the Documents Page](#).

If you desire to be removed from this email list, please email [info@karoecho.net](mailto:info@karoecho.net)

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## Other Resources

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"ALERTWildfire" camera links in our area:

[William Rust Summit cam](#)

[Wildcat Canyon cam](#)

[Vollmer Peak cam](#)

[Nichol Knob cam](#)

[View real-time data from any weather station in the state.](#)

[Albany Radio Groups.io forum](#)

[Eastbay Resilience Groups.io forum](#)

[Marina Bay Neighbors and 1st Wed West county GMRS net](#)

To make it easy for amateurs to evaluate RF exposure, ARRL provides an [RF exposure calculator](#) on its [RF Exposure page](#).

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## Technical Corner—Bluetooth radio interfacing

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As wireless communications operators, Bluetooth, a short range digital wireless mode, can be helpful in some circumstances for ham radio operations. Many of us may be familiar with, and use, Bluetooth to connect a wireless mouse, keyboard or headset to a computer or wirelessly stream music from a cell phone to a car or other speaker, but we might not have thought about using Bluetooth with ham radios. It is not uncommon on high end ham radios (often \$300+) to include Bluetooth functionality that allows using the radio with a wireless headset for earphone speakers and mic, even PTT. This can be seen as a luxury convenience option. In the spirit of keeping disaster response related gear as simple and reliable as possible, it is generally prudent to consider wired headphones for your go-kit. Something like Bluetooth might be more appropriate in situations that are motivated by mobility and convenience (operating in a car, bike or motorcycle or somewhere else you can't be tethered to the radio in a conventional way).

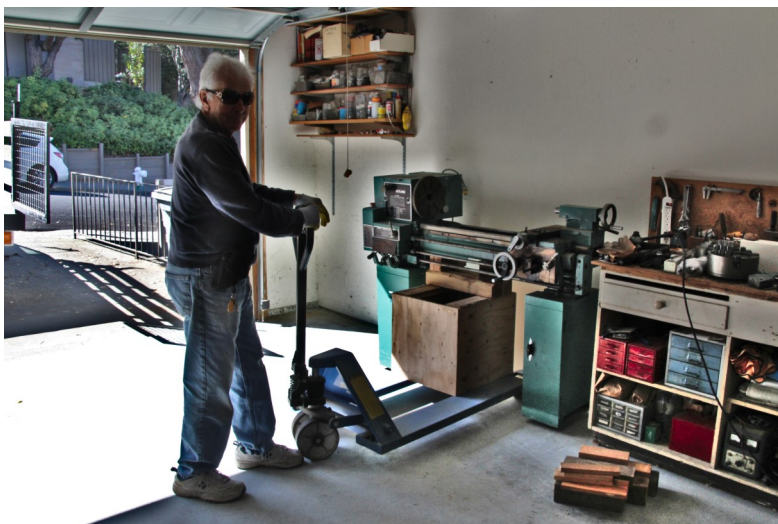
However, Bluetooth doesn't have to be an expensive premium option and there are situations where it might have a useful role in an emergency or lower level alert response. For example, consider an event of enough importance that you want to monitor a frequency at home, but not be unable to do some other tasks around the house. This might include red flag fire weather warnings, power outages (including PSPS events), or perhaps some shelter in place events like a refinery or other chemical release. Operating a reliable simplex net like the one we practice on 146.415 is greatly aided by having fixed operating stations with roof mounted antennas, which many KARO ECHO operations have at home, but it can be inconvenient to be stuck at your operating station, just to monitor a frequency that might not have a lot of critical traffic, but it remains important to keep informed of what is going on. In this case, using [Bluetooth adapter](#) to link between the headphone audio output of your radio and a remote [speaker](#) or [headset](#) can keep you connected while allowing you to be mobile within the house 30-100 feet away from the radio. You may have to fashion the wiring connection to patch the Bluetooth adapter to your radio's available audio connections, but there are also [plug and play models that work with common radios, including wireless PPT function](#).

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## Mutual Aid outside of a disaster

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Tom KN6BUY provided this picture of Jay KJ6WSS who brought over heavy lifting equipment to move a 900 lb. metal lathe in Tom's garage workshop to a more convenient location. It is great to see KARO ECHO members helping each other out when there isn't a disaster going on, including diverse topics beyond radio communication. Tom offers that when his lathe is cleaned up and operating, he is willing to fabricate customized metal or plastic pieces for club projects or for individuals' projects.





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## Digital Net—Mon. 9/20—FLdigi/msg

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KARO ECHO is starting a digital net for exploration and practice. Initially, this net will be held at 1900 on the third Monday of the month (one week after the monthly membership meeting). This net will provide and opportunity to learn and practice different digital modes. The day, frequency and focus of the net many change over time based on interest and other factors.

Please consider checking in even if you don't plan to try the digital modes at first. There will be a lot of discussion using our traditional analog FM voice mode and opportunities to learn and help build future participation.

The Monday 9/20, 7pm, session will work with the FLdigi software in combination with FLmsg to send formatted digital messages. There are many modulation choices within FLdigi, but we will begin with MT63-2000L because, while it isn't the fastest, it is a robust (noise tolerant) modulation that can be used with acoustic coupling, meaning there is no wired connection between the computer and radio. Instead, audio from the speaker of the radio is picked up by the microphone of the computer (RX-receive) as well as the reverse, audio from the speaker of the computer is picked up by the radio mic (TX-transmit). If you have a way to otherwise interface the audio between the computer and radio, you are welcome to use it, but the acoustic coupling method will allow anyone to try out this digital mode without buying specialized digital interface hardware and it still works remarkably well.

[FLdigi-4.1.20 setup.exe \(Windows\) can be downloaded with this link](#)

[FLmsg-4.0.19 setup.exe \(Windows\) can be downloaded with this link](#)

Those who wish to explore using FLdigi with linux can find [online guidance](#) (I haven't tried it personally).

Likewise I haven't looked into MacOS compatible versions on FLdigi.

[FLdigi manual](#)

[FLmsg manual](#)

Alternatively, instead of a WindowsOS computer, there is an android app that will work on android smart phone and tablets. It is a single app (instead of the two programs above) that will send and receive formatted messages. [The software and documentation for that option can be found here.](#)

These websites might seem a bit terse and the documentation a bit overwhelming, but it really isn't that hard to get started. I will try to provide a primer of the basics ahead of the Sept. 20th net, but even if you just download and install the software ahead, we can probably guide you through the basic setup during the net.

Feel free to contact Howdy KE6BEE [ke6bee@arrl.net](mailto:ke6bee@arrl.net) with any questions ahead of the net.

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## What Three Words—Location finding exercise

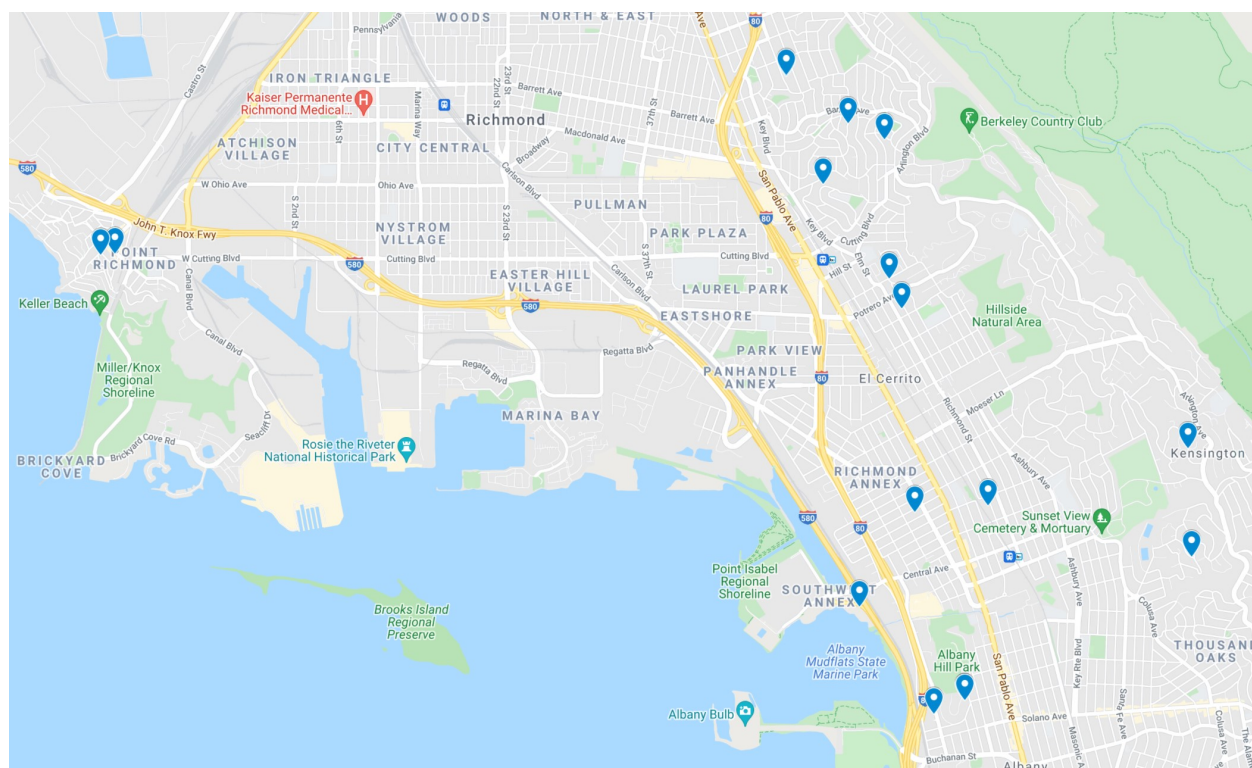
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During the September 2<sup>nd</sup> KARO ECHO weekly Thursday net exercise, we tested the [What3Words](#) method of sharing location information by voice over a net. After initial check-ins, net control called each operator and collected their location, reported using the "[what3words](#)" grid. This is a grid of 10ft by 10ft squares covering the entire earth, each identified by a sequence of three unique words, which is easier to voice over the radio than GPS coordinates and more precise than street addresses/intersections, etc.

While a system that relies on a website and internet connection is not appropriate for emcomm use, it is possible to cache the what3words grid data and use it offline. For example, there is a [smartphone/tablet app for w3w](#). When it is installed on your phone, it stores all the word combinations locally and you can generate your position from the phone's GPS receiver (which generally stills works in an emergency, because it is based on satellites which work even when the local cell signal and internet data connections are down).

The loss of WiFi and cellular data can be simulated by putting your phone/tablet in "airplane mode". You should still be able to get the three words associated with the phone's position as determined by the GPS receiver in the phone [without a network connection](#). One use of this could be organizing a reliable rendezvous point for a search and rescue response or exchanging materials, etc. Even with no available network connection, the phone app will give you a bearing and distance from your current position to another three word square, so if someone tells you to meet at ///humans.rarely.email, there is a way to navigate there reliably. There are [other mapping apps that cache data offline](#) that use this same three word system.

We had 19 operators report their positions with three words. The blue pins on the map below were located using the words provided after the net to demonstrate that the location information was successfully conveyed.



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## KARO ECHO Classifieds

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We are soliciting classified ads from KARO ECHO members, and friends, to facilitate gifting, swapping, selling radio gear and/or offering help/services such as loans of special equipment/tools, etc. Please send any content to the newsletter editor, Howdy [ke6bee@arrl.net](mailto:ke6bee@arrl.net)

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### ARRL license plate frame

\$0.50 for full KARO ECHO members

\$1.00 for others, Proceeds go to KARO ECHO

Contact Don [ni6a@arrl.net](mailto:ni6a@arrl.net)



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**Free Elmer support** for KARO ECHO by Don NI6A. Phone, email and home consultations regarding antennas, SWR, assembly of coax and Anderson power pole connectors, lending of special test equipment, etc. Contact: [elmer@karoecho.net](mailto:elmer@karoecho.net) for "free advice"

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**Loaner radios/antennas/meters** available for trial/testing, including:

HTs, larger mobile radios, gear for digital modes and mesh nodes, SWR/power meter

Contact: Howdy [ke6bee@arrl.net](mailto:ke6bee@arrl.net)

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**Available for free:** B&K Precision 2120B oscilloscope - 20MHz bandwidth, dual trace, triggered sweep. Contact: Tom, KN6BUY, at [tfat@sbcglobal.net](mailto:tfat@sbcglobal.net)

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**Chirp Elmering HELP WANTED:** Edward KM6UBY [posted instructions on the Marina Bay Neighbors training website](#) to use CHIRP to load Jay's KJ6WSS WCC memory program of .img or .csv files for a variety of ham radios and the GMRS V1 radio. I hope to find Elmers located throughout WCC to direct the new recruits for help programming their radios. Anyone interested in helping, please contact me directly. Karen KK6ZPM

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Natalie KM6UCF donated the six 2020 issues of the bimonthly ARRL "On the Air" magazine. Includes some good articles on transmission lines, go-kits, propagation, antennas, etc.

Also, four books, including the 2019 and 2019 editions of the ARRL Operating Manual which is a good reference.

Free to any member, modest donations to KARO-ECHO welcomed. Contact: Don [ni6a@arrl.net](mailto:ni6a@arrl.net)

